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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,975	10/05/2001	Enrico Rizzi	Q66353	3216

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EXAMINER

KERNS, KEVIN P

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/970,975	<b>Applicant(s)</b> RIZZI, ENRICO	
	<b>Examiner</b> Kevin P. Kerns	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 1, 4 and 5 is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/5/01</u> .   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I (claims 1-7) in the reply filed on June 29, 2004 is acknowledged.

***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "control means and devices" (claims 1 and 4) and the "connection elements between said inlet and outlet openings" (claim 5) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the

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changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "Z" and "Z1" (Figures 1 and 2). Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The

abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In this instance, the term "improved" should be removed from the abstract, because "improved" is a term that can be implied, and the abstract repeats information given in the title.

5. The disclosure is objected to because of the following informalities: on page 3, line 19, "realise" should be changed to "realize". On page 4, lines 5-13, references to claims 1 and 8 should be deleted, as claim numbering often changes throughout prosecution of the application. On page 4, line 28, "figures" should be changed to "figure" before "4A". On page 9, last line, "1" should be changed to "N1" after "Nozzle". On page 11, 3<sup>rd</sup> line, "1" should be changed to "2" after "stripper". Corrections and/or clarifications are required for these and other errors that occur throughout the specification.

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should include content related to the 180 degree inversion of the stripper around a horizontal axis.

### ***Claim Objections***

7. Claims 1, 4, and 5 are objected to because of the following informalities: in claim 1, 1<sup>st</sup> line, "Improved" should be deleted, as "improved" is a term that can be implied. In

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claim 1, 8<sup>th</sup> line, "exchange" should be changed to "exchanger". In claim 1, 10<sup>th</sup> line, "a" should be added after "in". In claim 4, 2<sup>nd</sup> line, "exchange" should be changed to "exchanger". In claim 5, 2<sup>nd</sup> line, the term "it" (before "comprises") should be changed to a descriptive term. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 1, it is unclear what structural details are claimed in terms of rotating the stripper 180 degrees. In other words, how does the 180 degree rotation occur without a centrally located rotating shaft (rather than an "axis") to pivot the stripper apparatus around its horizontal axis? Is the 180 degree rotation conducted by an external lifting/rotating machine? This claim does not distinctly set forth that such a structure is required, and similar (symmetrical) structural details of another (prior art) apparatus that is not intended to be rotated (although "capable of" being rotated) would effectively set forth a similar structure.

Claims 1 and 4 recite the limitation "the stripping step". There is insufficient antecedent basis for this limitation in the claims. It is also unclear if a "stripping step" would necessarily need to take place, as the claims are drawn to an apparatus.

Claim 4 recites the limitation "the stripper shell". There is insufficient antecedent basis for this limitation in the claim. It is also unclear whether this limitation should be changed to "the cylindrical shell" or "the stripper".

With regard to claim 5, it is unclear what structures in the drawings refer to the "connection elements between said inlet and outlet openings".

With regard to claim 6, it is unclear what structural details are claimed, as only the horizontal symmetry axis and the horizontal and vertical planes of the stripper are set forth in the claim.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zardi et al. (EP 0 306 614 A2).

Zardi et al. disclose an apparatus for the production of urea and carbon dioxide stripping from urea solutions, in which the apparatus includes a stripper having a substantially cylindrical shell defining a plurality of structures that include the following (see Figures 3 and 5): top and bottom closed opposed ends; a plurality of inlet and outlet openings and connection elements for stripping fluids; a symmetrically arranged

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heat exchanger; control means and devices for controlling the stripping process; and (inherently) defining a plurality of axes (x,y,z) and planes (P,Q,S) around a centrally symmetrical location (centroid) of the stripper, with the cylindrical shell necessarily having a support structure and other support elements for holding the stripper in a vertical position (abstract; page 3, line 35 through page 5, line 5; and Figures 2-8). Although not specifically set forth by Zardi et al., one of ordinary skill in the art would have recognized that the nearly symmetrically arranged stripping apparatus disclosed by Zardi et al. would require removable support structures/elements that hold the stripper in a vertical position, in addition to future disassembly due to excess corrosion of the stripper. As a result, it would have been obvious to one of ordinary skill in the art to invert the stripping apparatus of Zardi et al. by 180 degrees (or any other angle), as the apparatus is "capable of" being removably supported for repair and/or replacement.

#### ***Allowable Subject Matter***

12. Claims 2 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to teach or suggest an apparatus that includes a stripper with a substantially cylindrical shell and multiple inlet/outlet openings that are symmetrical in the stripper with respect to a horizontal axis of symmetry (claims 2 and 7).



**Conclusion**

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Sze et al. and two Zardi et al. references are also cited.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kevin P. Kerns whose telephone number is (571) 272-1178. The examiner can normally be reached on Monday-Friday from 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin P. Kerns *Kevin Kerns* 7/16/04  
Examiner  
Art Unit 1725

KPK  
kpk  
July 16, 2004